



Compressed Natural Gas: the Dallas Story

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Presented by: Steven M. Park
Director, Equipment and Building Services
City of Dallas

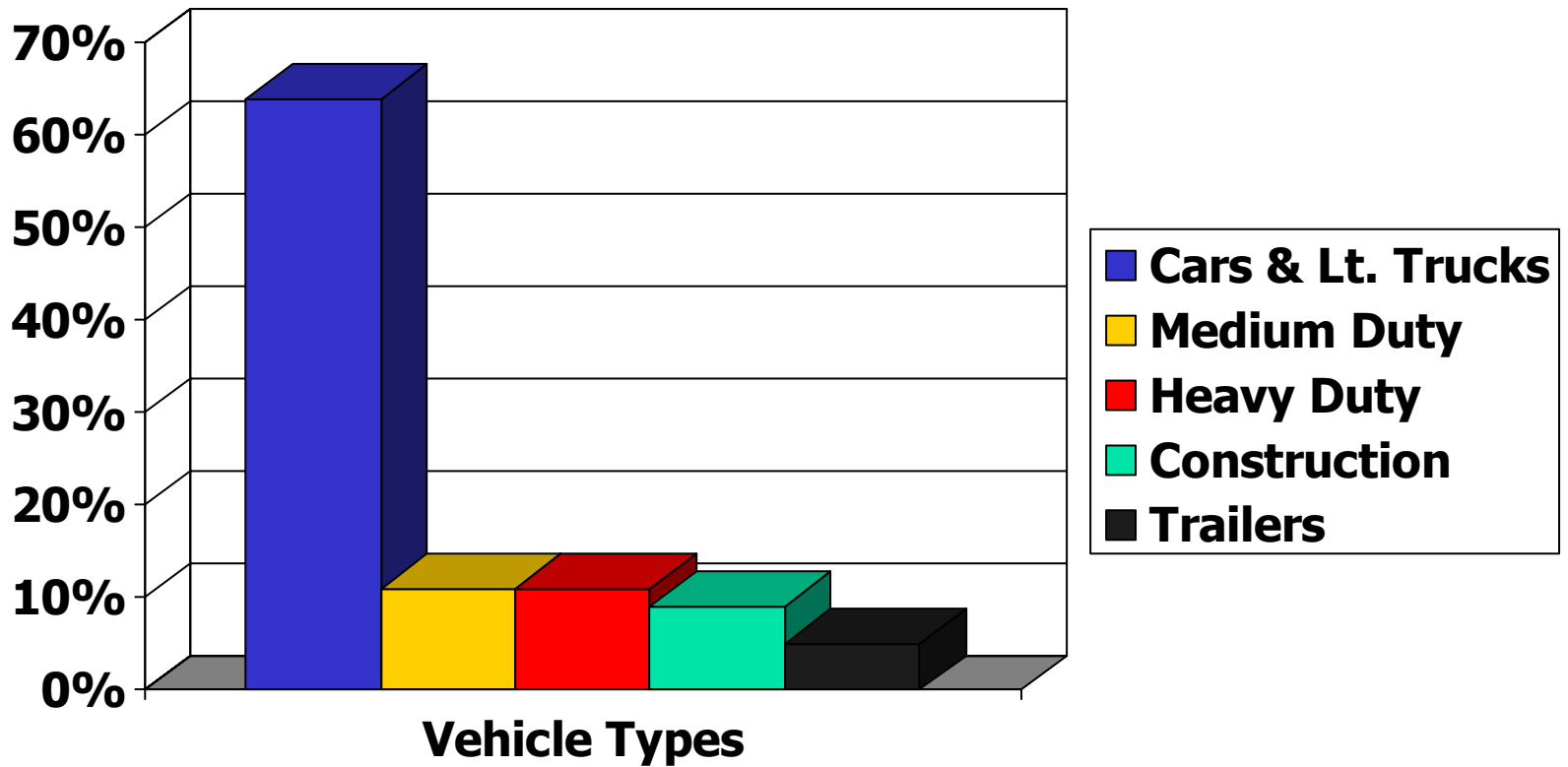


City of Dallas Fleet

- Equipment and Building Services (EBS) is responsible for over 4,750 vehicles:
 - Purchase and replacement
 - Full maintenance service
 - Purchase and dispensing of 6.7 million gallons of fuel annually



Fleet Composition





Air Quality Issues

- City of Dallas designated as a serious non-attainment area
- State Legislative requirements for alternative fuel purchases
 - 10% of total fleet by 9/1/98 or 30% of vehicle purchases after 9/1/98
 - 50% of purchases after 9/1/00
 - 70% of light duty fleet purchases after 9/1/02 and 50% of heavy duty purchases after 9/1/02



Dallas Response

- Alternative fuel vehicle (AFV) program began in spring 1992
- Use of public access stations to promote growth
- Compressed Natural Gas (CNG) selected:
 - 14 dedicated natural gas pickups purchased in FY92
 - Vehicle bi-fuel conversions
 - 50 in FY 92/93
 - 261 in FY 93/94



Early Obstacles

- User acceptance of new fuel type
 - Bi-fuel vehicles leave users with easier gas options
- Fears of high-pressure cylinders
 - First natural gas vehicles recalled
- Limited range of travel on CNG
 - Bi-fuel capacity limited by space requirements
- Sacrifice of pickup bed space for additional fueling cylinders
- Driving performance of bi-fuel vehicles
- Different & limited fueling locations



Program Re-evaluated

- Decision to purchase only dedicated CNG vehicles
 - Mandates use of alternative fuel
 - Addresses distance factor
 - Improved reliability & performance



Vehicle Acquisition

- With every fleet purchase, the City has aggressively sought to use alternative fuel vehicles if at all feasible
- Recent vehicle purchases of dedicated CNG vehicles with ILEV certification
 - FY 97 -- 101 FY 00 -- 335
 - FY 98 -- 17 FY 01 -- 145
 - FY 99 -- 117

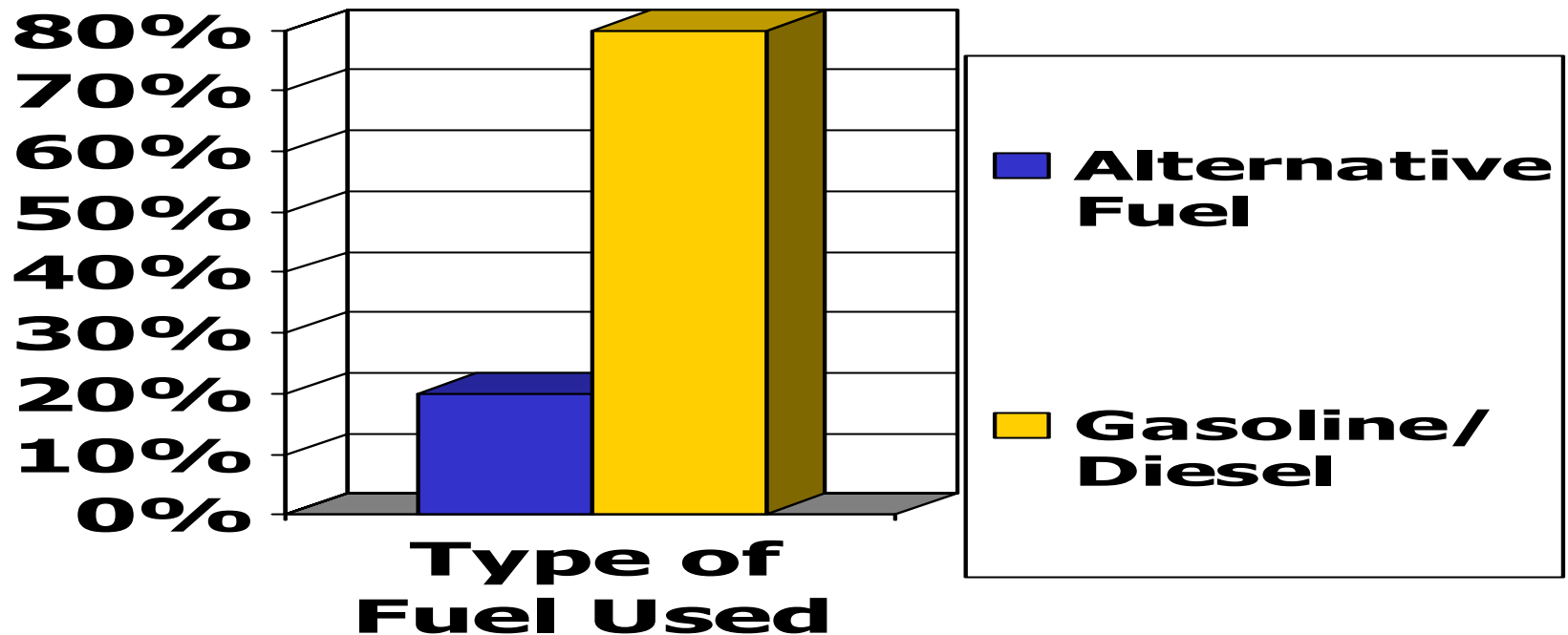


Other Alternative Fuel Vehicles

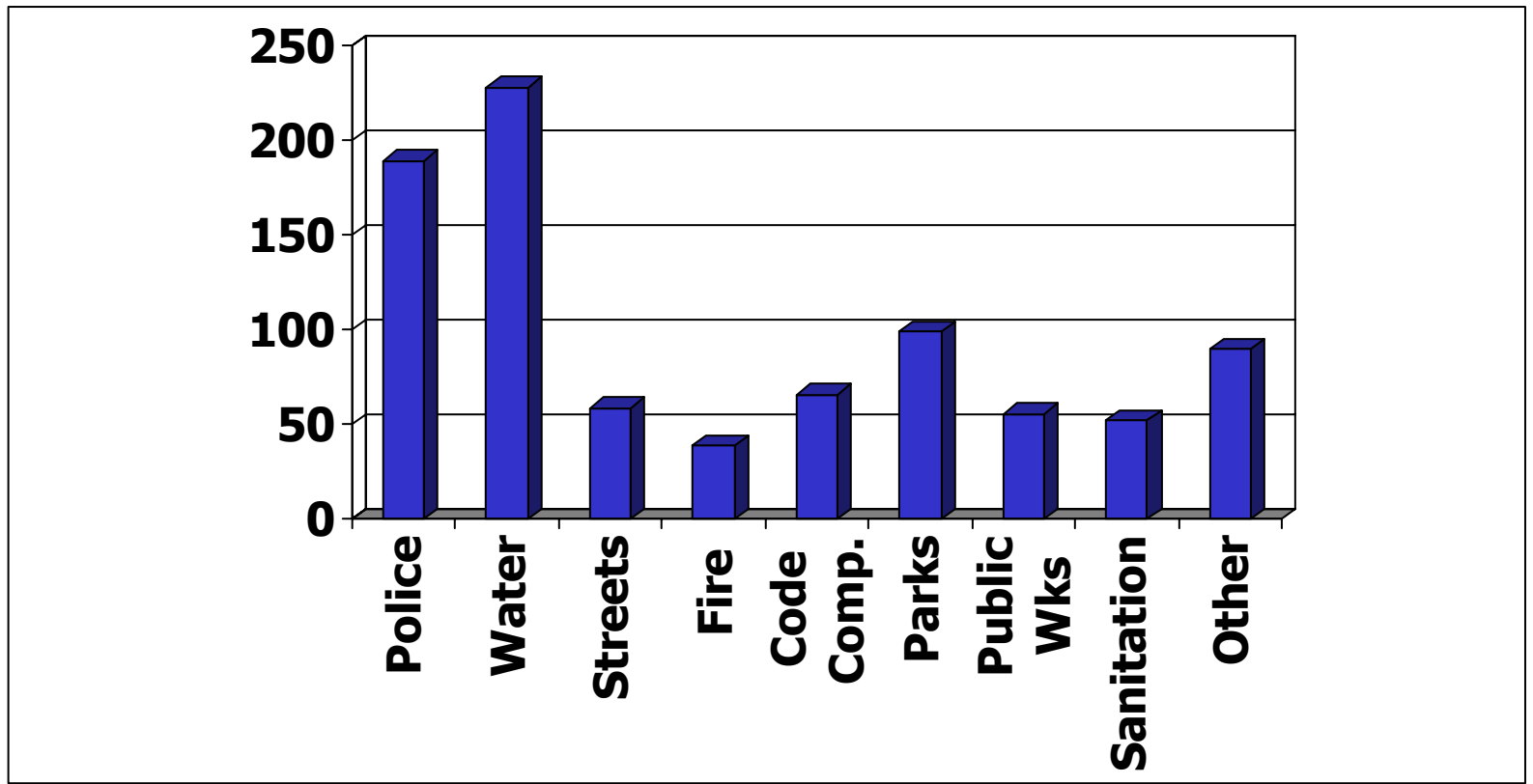
- In FY 00/01, Dallas ordered 10 hybrid/electric vehicles
 - To broaden the mileage range available, in turn allowing additional vehicles with specific long-range needs to use an alternative fuel
 - To evaluate performance and clean air aspects



FY 2000/2001 Status



Alternative Fuel Vehicles by Department

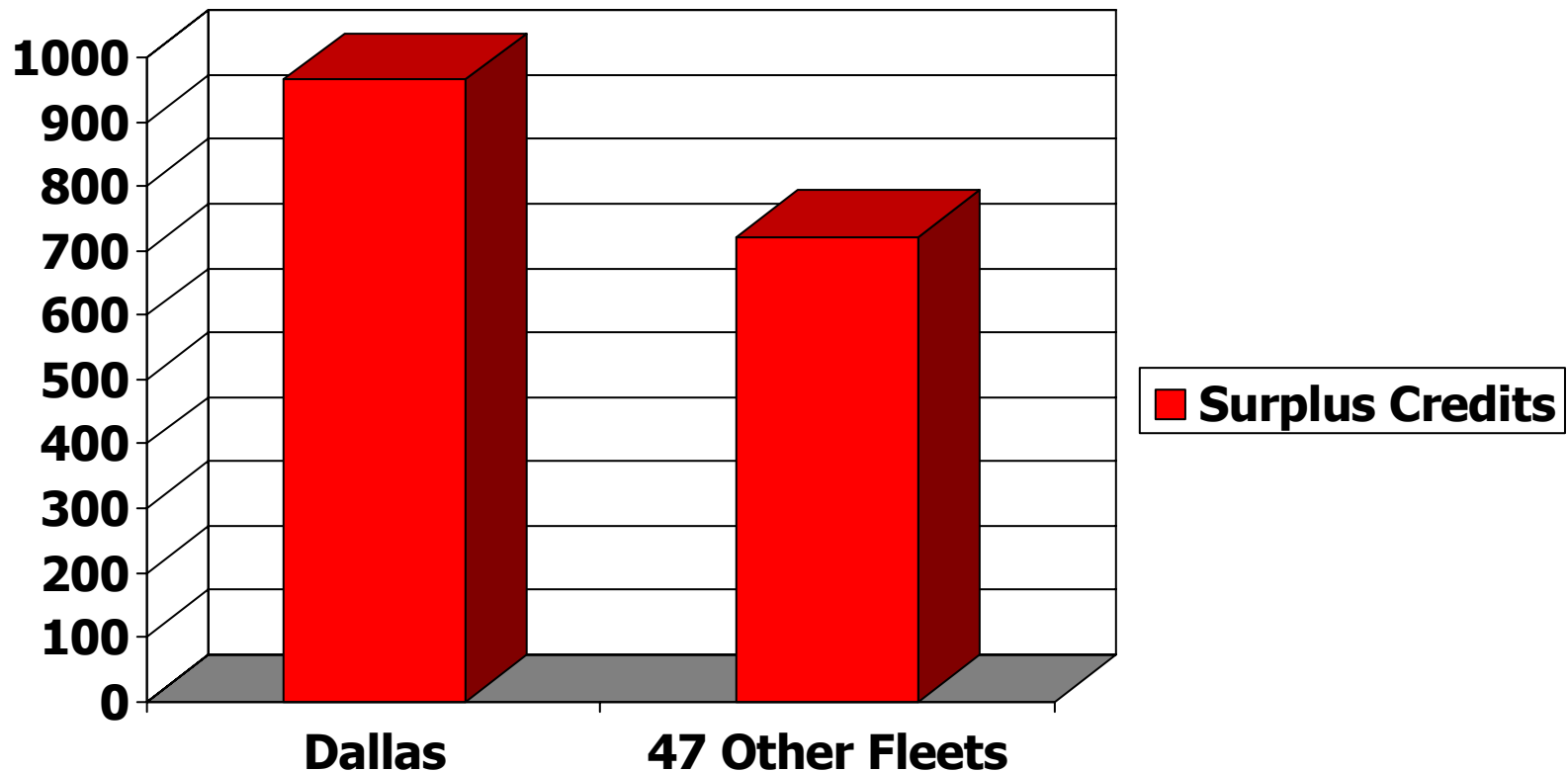




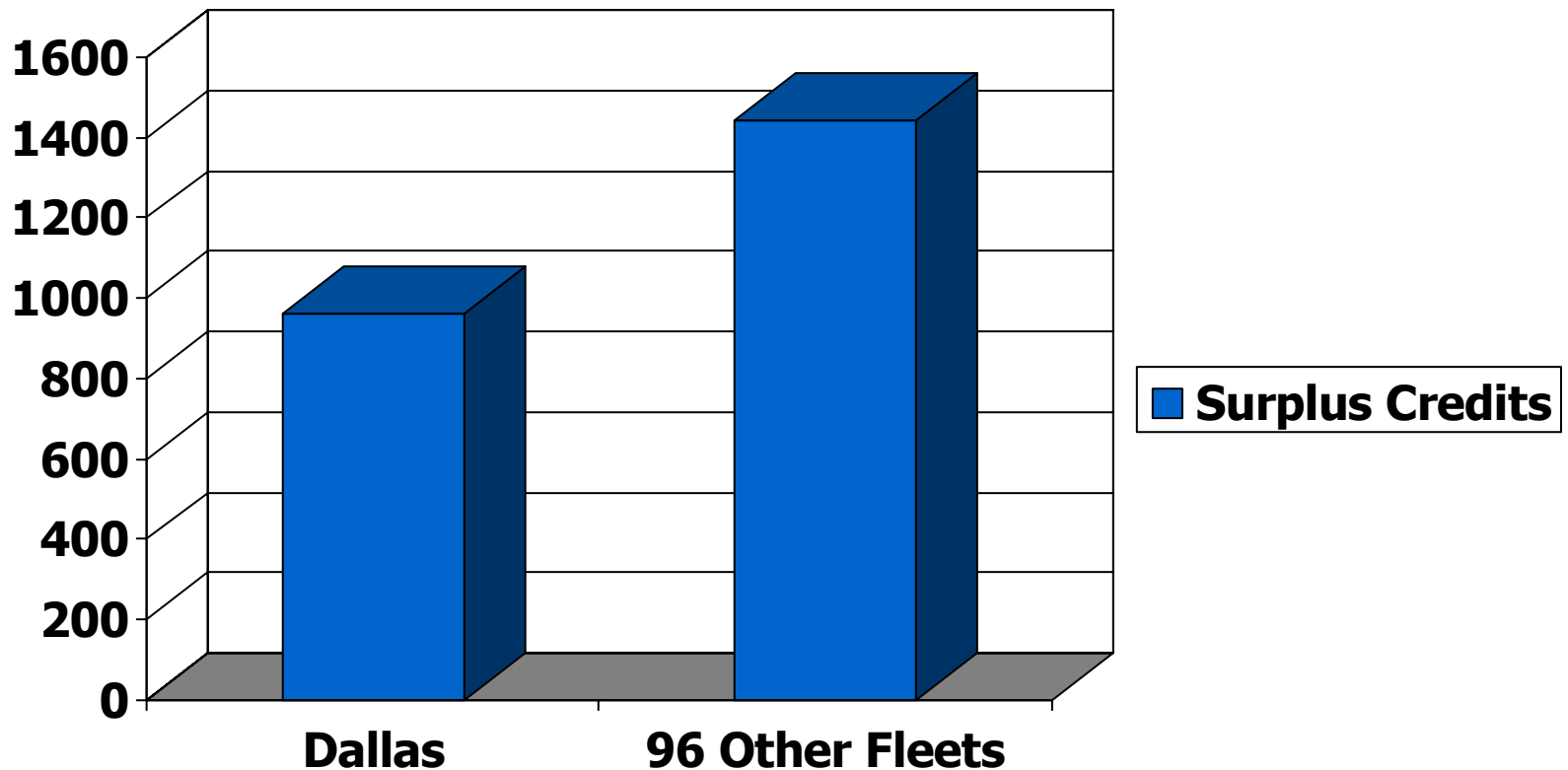
Successes

- Dallas purchases AFV's in categories exempt from the regulations
- Dallas purchases AFV's with cleaner LEV ratings than required
- Dallas purchases more AFV's than required
- Results in additional surplus credits for clean air actions

D/FW Non-attainment Area TNRCC Report-Dec. 2000



Texas Statewide TNRCC Report-Dec. 2000





Funding

- Dallas has utilized over \$3 million in Congestion Mitigation and Air Quality Improvement Program funds administered by the North Central Texas Council of Governments that reimburse over 80% of incremental costs
- Matching funds are included in fleet replacement budget



Remaining Obstacles

- Acceptance of CNG vehicles for administrative police and fire functions
- Departmental attempts to choose “necessary” options unavailable on CNG vehicles
- Remote City facilities with limited access to close CNG fueling sites



Future Needs

- Additional vehicle types, especially heavy trucks and heavy equipment
- Additional equipment options, such as extended cabs and crew cabs on pickups
- Extended range capacity per tank
- Additional fueling sites-especially to allow travel outside the city limits
- Additional CNG providers